inferior posterior part of the optic tract. This sclerosis did not show secondary degeneration. In this case then there is a lesion exclusively of the intra-cerebral visual apparatus, causing the phenomena of hemianopsia. Case II. Double hemianopsia with preservation of the central portion of the field of vision. Autopsy: The right hemisphere presents an old focus of softening upon its inferior surface. The hippocampal convolution is softened, especially in the external posterior half. The retro-lenticular fold, the lingual lobe, the fusiform and the third temporal are all affected. Upon the internal surface, the calcarine fissure is involved in its whole extent. In the left hemisphere there is a softening in the parietal lobe. In this case there is in part a softening, which has destroyed in the right hemisphere, the region of the cortical visual center, in part a focus of softening located in the left hemisphere, which occupies the whole substance of the pli-courbe and the neighboring region of the temporal and parietal lobes. These observations confirm the results of observers as to the origin of intra-cerebral hemianopsia, as in these two cases, in spite of the great extent of the lesions, degeneration of the fibers of Gratiolet and of the corpus callosum was not observed. The lesion then was strictly focal in its nature, in the optic tract.

SCHWAB.

KERNIG'S SIGNE (Kernig's Sign.) J. Roglet. (Journal de Médecin, Oct., 10, 1900.)

The author here reports on an extensive series of observations on the subject of Kernig's sign. This sign, as is well known, consists in the possibility of completely extending the leg on the thigh when in the sitting posture, in a patient suffering from certain meningeal diseases. There is a certain amount of contracture of the flexors of the leg. This contracture, on the other hand, disappears, and complete extension can be obtained when the patient is lying on the back. It is therefore easy to elicit this phenomenon if, after having ascertained the absence of all contracture in the supine position, the patient is made to sit up with his legs hanging free, or even sitting up in bed. Certain precautions are therefore necessary. The observer must see that the patient sits straight upright, and does not lean to one side or the other, and that the thighs form a right angle with the trunk, certainly not less. Disregard of this point may lead to considerable error. The attempt to obtain Kernig's sign is sometimes attended with considerable pain. The amount of extension obtained at the knee varies considerably. When Kernig's sign is well marked it is impossible to exceed a right angle; when slight, an obtuse angle equal to 135 degrees; but intermediate degrees may be obtained. Nor is the sign always bilateral; occasionally it has been observed on one side only, or to an unequal extent in both limbs. The intensity of the phenomenon may vary from day to day, or may even disappear completely. To be therefore sure of its non-existence several observations are necessary. Kernig's sign may appear at the same time as the other symptoms, rigidity of the neck, ocular symptoms, contracture, etc., but most usually it appears about the third or fourth day of the disease. In tuberculous meningitis its appearance is most delayed. It is very rare for it to be the only symptom present. Kernig's sign may disappear at variable periods. In meningitis ending fatally, it may persist up to the end, but in other cases it may disappear shortly before death, especially in cases, where owing to coma, there is general flaccidity, and all contractures give place to paralysis. It is under such circumstances that Kernig's sign has been missed in several cases of meningitis. The diagnostic value of this sign is considerable as it has been met with in 85 to 90 per cent. of cases of meningitis. It is, however, present in other conditions with meningeal inflammation—for example, meningeal hemorrhage and cerebral abscess —but this seems to be exceptional. Its value is reduced, therefore, by the fact that it rarely appears at the beginning of the case or occurs alone. The diagnosis is consequently in many cases apparent independent of this sign. Roglet explains the phenomenon as follows: In a person in a sitting posture with the thighs flexed to some degree, and the trunk of the legs extended, the flexor muscles are on stretch, and their elasticity is soon exhausted. If under the influence of spinal irritation and irritation of the spinal roots, where this may be due to increase of intraspinal pressure or to the presence of purulent exudation, there is naturally produced some increase of muscular tonicity. This diminishes the elasticitv and length of the flexor fibers which then become too short to allow of extension of the leg on the thigh, and thus the sign is produced.

JELLIFFE.

PATHOLOGY.

UEBER ERKRANKUNG DES GEHIRNS NACH TRAUMA (Traumatic Diseases of the Brain). M. Koppen (Archiv für Psychiatrie und Nervenkrankheiten, xxxiii., 2, 1900).

The author reports in detail eight cases, with pathological findings, from his service in the Charité, and gives the following general conclusions:

Violence when inflicted upon the skull frequently produces small lesions of the base of the frontal lobes, at the apices of the parietal lobes and of the occipital. They may even be found when the skull is not injured. At the affected areas destruction of the tissues is shown by hemorrhagic infiltration and various stages of encephalitis. From these foci scars and other defects with a cicatricial investment later appear.

The presence of these scars may be taken as an indication of a previous trauma. Foci of softening are frequently localised in the cerebral cortex, but over small cicatrices, with numerous areas of hemorrhage, may be assumed to be of traumatic origin. The existence of such defects is shown by small contractions or depressions. When these scars and defects are found the incidence of a traumatism is almost certain.

The exuded blood may be entirely resorbed or for a long time may remain in the form of pigment deposits or of colored amorphous masses, or small bodies which preserve the outward form of blood corpuscles. The absence of signs of hemorrhage does not negative the occurrence of a trauma.

Certain symptoms stand in direct relation to the occurrence of the lesions of the base of the brain, *e.g.*, indications of the meningitis, as rigidity of the neck and forced positions of the body.

Severe cerebral symptoms, as coma with spasms, in which death ensues, may appear suddenly in traumatic cases, without the appearance of any other condition than the minute areas of destruction of the basal cortex. These compel the assumption that an irritation proceeds from these areas, sufficient to call forth general symptoms, probably in the form of circulatory disturbances. These severe cerebral manifestations may ensue long after the trauma.

The symptoms of sudden irritation of the brain and of a general